PROCESSES AND PROPERTIES INDEX

12

Determination of inorganic arsenic in foods under field conditions. R. I. Berzina. *Gigiena i Sanit.* 13, No. 2, 51–2(1948)(in Russian).—In preliminary expts., the sensitivity of the metallic Cu test was found to be about 1.5 mg. As_2O_3/l. (with 5 ml. 16% HCl in 10 ml. of soln.). In flour exts. (4 g. in 20 ml.), the same test only permitted detection of 3.8 mg. As_2O_3/l.; in paper, soil, potatoes, cotton, and meat, of about 23 mg./l. To differentiate As from Sb and Bi, the blackened Cu foil is dissolved in 3 ml. 30% HNO_3, evapd. to dryness, dissolved in 10 ml. distd. H_2O, treated with 0.5 ml. 10% NaOH, and filtered. The filtrate is acidified with 0.5 ml. 13% H_2SO_4 and heated slowly after addn. of 0.5 ml. molybdate reagent; presence of As is revealed by a permanent blue color. The molybdate reagent is prepd. by mixing 25 ml. of 10% $(NH_4)_2$-MoO_4 with 25 ml. concd. H_2SO_4, dilg. to 100 ml., and shaking with Cu filings for 1 hr. N. Thon

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

PROCESSES AND PROPERTIES INDEX

CA

An apparatus for the determination of arsenic under field and expedition conditions. A. I. Moshel and R. I. Bereamna. *Lab. Prakt.* (U. S. S. R.) 16, No. 1, 29-4(1941).— A 30-40-ml. flask is provided with 3 ground tubes (*A* and *B*) and a buret (*C*). *B* contains a reagent disk, 10 mm. in diam., satd. with $HgBr_2$. A strip of filter paper satd. with $Pb(AcO)_2$, is passed through the lower end of the tube to absorb H_2S. To det. As, pour approx. 2-3 ml. of sample into the flask, add 2 g. of As-free Zn, close the flask with *B* and cover *B* with *A*, which is used to keep in place the reagent disk satd. with $HgBr_2$ soln. After the app. had been assembled pour 5-8 ml. of As-free H_2SO_4 from *C*. The reaction is completed after 40-60 min. To fix the spots of $As(HgBr)_3$ and to obtain a brighter color, place the reagent disk in 10% KI soln. for 10-15 min. Wash the disk several times with distd. water and dry with filter paper. Compare the color with a standard color scale. Five references.

W. R. Henn

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

BERDIMAN, A.M.

Geometric properties of a conjugate set of four per... ... ...
sequence of Calapso transformations of five straight... ...
Trudy sem. MIPI no.108-66-75 '61.

BEREZMAN, A. M.

Call Nr: AF 1108825

Transactions of the Third All-union Mathematical Congress (Cont.) Moscow,
Jun-Jul '56, Trudy '56, V. 1, Sect. Rpts., Izdatel'stvo AN SSSR, Moscow, 1956, 237 pp.
Berezman, A. M. (Kemerovo). Laplace Transformation in T_5
Applied to Transformation Fibered Congruence Pairs.   140-141

Mention is made of Finikov, S. P.

Blank, Ya. P. (Khar'kov). On Congruences W.   141

Borisov, Yu. F. (Leningrad). Parallel Shaft of Vector
and the Curves on Irregular Smooth Surfaces.   141-142

Mention is made of Aleksandrov, A. D.

Borisov, Yu. F. (Leningrad). Geometry of Semineighborhood
in Two-dimensional Manifolds of Bounded Curvatures.   142-143

Byushgene, S. S. (Moscow). Congruence Lines on the
Family of Surfaces.   143-144

Card 46/80

BEREZMAN, A.M.

BEREZMAN, A.M. : "The transformation of stratified and joined pairs of congruences by Laplace transformation in P5". Moscow, 1955. Moscow City Pedagogical Inst. imeni V.P. Potemkin. (Dissertations for the degree of Candidate of Physico-mathematical Sciences).

SO: Knizhnaya Letopis' No. 50. 10 December 1955. Moscow

ILLEGIBLE

ACC NR: AR6020050   SOURCE CODE: UR/0276/66/000/001/B046/B046

AUTHOR: Berezkov, B. N.; Urmayev, G. F.

TITLE: A method for feeding the signal to the servosystem of an installation for electrochemical dimensional finishing

SOURCE: Ref. zh. Tekhnologiya mashinostroyeniya, Abs. 1B313

REF SOURCE: Tr. Kuybyshevsk. aviats. in-t, vyp. 20, ch. 1, 1965, 175-177

TOPIC TAGS: servomechanism, electroerosion machining, automatic control equipment

ABSTRACT: One widely used procedure for controlling the process of electrochemical dimensional machining is the method of holding the working current constant. In order to do this, it is necessary to introduce a signal proportional to the current into the servosystem. A pickup is considered which converts the current to voltage for controlling this process. The pickup is a voltage divider consisting of a magnetron (a diode controlled by a magnetic field) and the load resistance in series. 5 illustrations. L. Tikhonova. [Translation of abstract]

SUB CODE: 13, 09

Card 1/1   UDC: 621.9.047
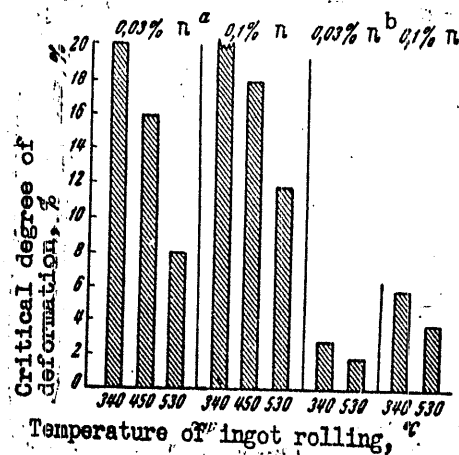
L 37166-66

ACC NR: AT6016422

Fig. 1. Critical degree of deformation of aluminum for deformation at room temperature as a function of the titanium content and temperature of hot rolling of aluminum cladding ingots. a – cold rolled aluminum (thickness 2.0 mm); b – surface layer of hot rolled alloy D16.

Orig. art. has: 4 figures.

SUB CODE: 11/ SUBM DATE: 16Sep65/ ORIG REF: 001

Card 2/2 af

L 37166-66   EWT(m)/T/EWP(t)/ETI/EWP(k)   IJP(c)   JD/HW/GD/JH

ACC NR: AT6016422   (A)   SOURCE CODE: UR/0000/65/000/000/0151/0157

AUTHORS: Livanov, V. A.; Golokhmatova, T. N.; Berezko, R. M.; Vasil'yeva, Ye. N.

ORG: none

·TITLE: Structural inhomogeneity of the cladding layer in sheets of alloy D16

SOURCE: AN SSSR. Institut metallurgii. Metallovedeniye legkikh splavov (Metallog-
·raphy of light alloys). Moscow, Izd-vo Nauka, 1965, 151-157

TOPIC TAGS: titanium containing alloy, manganese containing alloy, aluminum alloy /
D16 aluminum alloy

ABSTRACT: The effect of hot and cold rolling of alloy D16 sheets on the homogeneity
and structure of the aluminum surface layer of the sheets was investigated. The
investigation was initiated to determine the mechanism for the formation of large
crystal grains in the surface layer of D16AT and D16ATV hot rolled sheets. The
effect of adding titanium, manganese, zirconium, and boron on the crystal grain
size in the surface layer of the hot rolled sheets was also studied. The experi-
mental results are presented graphically (see Fig. 1). Whereas additions of Zn
and B had no effect on the crystal grain size, additions of Ti considerably lowered
the crystal grain size, and additions of Mn completely removed any inhomogeneity
in the aluminum surface layer of the alloy.

Card 1/2

MAL'NEV, A.F.; KREMENCHUGSKIY, L.S.; BEREZKO, B.N.; SHEVTSOV, L.N.;
BOGDEVICH, A.G.; KIRILLOV, G.M.; CHASHECHNIKOVA, I.T.;
YARMOLENKO, N.A.; OFENGENDEN, R.G.; SERMAN, V.Z.;
DALYUK, Yu.A.; BEREZIN, F.N.; KONENKO, L.D.; SHALEYKO, M.A.;
SHEVCHENKO, Yu.S.; STOLYAROV, V.A.; KIRILLOV, G.M.; BOGDEVICH, S.F.;
LYSENKO, V.T.; BRASHKIN, N.A.; SKRIPNIK, Yu.A.; GRESHCHENKO, Ye.V.;
TUZ, R.M.; SERPILIN, K.L.; GAPCHENKO, L.M.

Abstracts of completed research works. Avtom. i prib. no.3:90-91
Jl-S '62.   (MIRA 16:2)

1. Institut fiziki AN UkrSSR (for all except Skripnik,
Greshchenko, Tuz, Serpilin, Gapchenko). 2. Kiyevskiy
politekhnicheskiy institut (for Skripnik, Greshchenko, Tuz,
Serpilin, Gapchenko).
                        (Research)

NAYDICH, I.M.; BEREZKINA, Z.A.

Mechanical properties of some coals of Kirghizistan and
Kazakhstan. Trudy Inst.vod.khoz.i energ. AN Kir.SSR no.5:
119-130 '59. (MIRA 13:5)
(Kirghizistan--Coal--Testing)
(Kazakhstan--Coal--Testing)

BEREZKINA, Z.A.

BEREZKINA, Z.A.; NAYDICH, I.M.

Briquetting capacity of some coals of Kirghizia and Kazakhstan
without using binders. Trudy Inst. vod. khoz. i energ. AN Kir.
SSR no.4:173-187 '57.   (MIRA 10:12)
              (Kirghizistan--Briquets (Fuel)
              (Kazakhstan--Briquets (Fuel)

Spectroscopic   Investigations of the Structure of Some   SOV/48-22-9-35/4o
Complex Compounds. 3. Influence of Water   on the Structure of Para- and
Meta-Sodium-Tungstenates

$(3000 - 3800 \text{ cm}^{-1})$ which is especially favorable for a
study of the aqueous state were investigated. Besides,
the absorption spectra of meta-sodium-tungstenate $(Na_2W_4O_{13})$

with a composition of $10 H_2O$, $7 H_2O$, $2 H_2O$ and of a water free

meta-sodium-tungstenate were studied. A comparison of
the results of the investigation of various hydrates
of para- and of meta-tungstenates permits a joint treatment.
An immediate connection between the coordination of the
water in the complex and the anion structure of the iso-
poly compounds was established to exist. A modification
of the water coordination at a dehydration leads to an
alteration of the structure of the anion. The maintenance
of a stable coordination of the water does not lead to
an alterartion of the structure of the complex. There are
2 figures.

ASSOCIATION: Institut fizicheskoy khimii Akademii nauk SSSR (Institute
Card 2/2   of Physical Chemistry, AS USSR)

AUTHORS: Babushkin, A. A., Yukhnevich, G. V.,   SOV/48-22-9-35/40
             Berezkina, Yu. V., Spitsyn, V. I.

TITLE: Spectroscopic   Investigations of the Structure of Some
             Complex Compounds (Spektroskopicheskiye issledovaniya
             stroyeniya nekotorykh kompleksnykh soyedineniy)3. In-
             fluence of Water   on the Structure of Para- and Meta-
             Sodium-Tungstenate. (3. Vliyaniye vody na stroyeniye
             para- i metavol'framatov natriya)

ABSTRACT: This is a condensation of the paper published under
             the above subtitle Nr 3 in the "Izvestiya Akademii nauk
             SSSR" by A.A.Babushkin . It covers the investigation
             of the infrared absorption spectra of paratungstenates
             $(5Na_2O.12WO_3)$ with a composition of 28 H_2O, 19 H_2O, 9 H_2O,
             4 H_2O, 2 H_2O and of water-free tungstenate. Two ranges,
             that of the valence- and deformation oscillations of the
Card 1/2   tungstenate ion $(700 - 1700$ $cm^{-1})$ and that range

L 20364-66

ACC NR: AP6012076

3

bent models as a rule are considerably greater than the actual specific
surfaces of the secondary pores of real formed zeolites. Hence methods of
depression of mercury and capillary condensation of vapors cannot serve as
any accurate estimation of the specific surfaces of secondary pores of the
formed zeolites. The authors thank B. A. Lipkind, T. G. Plachenov and Ya. V.
Mirskiy for making available for research the samples of crystalline and formed
zeolites. Orig. art. has: 6 figures, 7 formulas, and 3 tables. [JPRS]

SUB CODE: 07, 11 / SUBM DATE: 17Jul63 / ORIG REF: 012 / OTH REF: 001

Card 2/2   vmb

L 20364-66 EWT(1)/EWT(m)/T

ACC NR: AP6012076

SOURCE CODE: UR/0062/65/000/010/1731/1740

AUTHOR: Dubinin, M. M.; Berezkina, Yu. F.; Polstyanov, Ye. F.; Ryabikova, Z. A.; Sarakhov, A. I.

ORG: Institute of Physical Chemistry, AN SSSR (Institut fizicheskoy khimii AN SSSR)

TITLE: Study of the adsorption properties and secondary porous structure of adsorbents having molecular-sieve action. Report 11. Specific surface of secondary pores of molded synthetic zeolites, type A

SOURCE: AN SSSR. Izvestiya. Seriya khimicheskaya, no. 10, 1965, 1731-1740

TOPIC TAGS: adsorption, zeolite, porosity, molecular sieve

ABSTRACT: The analysis of the physical content of various methods of determining the specific surface of the secondary pores of formed zeolites is presented. The specific surface of secondary pores of an equivalent sorbent model with an accepted geometric form of the pores can be calculated from experiments on the depression of mercury and the capillary condensation of benzene. By using a highly sensitive weight adsorption device the specific surfaces, close to actual, of secondary pores of formed Type A zeolites and external surfaces of the zeolite crystals contained in them are determined. The specific surfaces of the secondary pores of the formed zeolites are determined mainly by the porous structure of additives of the binding substances. The specific surfaces of the secondary pores for equivalent porus sor-

Card 1/2

UDC: 541.18+661.183

BABAD-ZAKHRYAPIN, A.A.; BEREZKINA, Yu.F.

Mechanism underlying complex formation in solutions of tungstates
and molybdates. Zhur.strukt.khim. 4 no.3:346-349 My-Je '63.
(MIRA 16:6)

1. Institut fizicheskoy khimii AN SSSR.
(Complex compounds) (Tungstates) (Molybdates)

KRASNOYARSKIY, Vladimir Vasil'yevich; NOSOV, Roman Petrovich;
FRENKEL', Grigoriy Yakovlevich; BEREZKINA, Yu.F., red.;
BUL'DYAYEV, N.A., tekhn. red.

[Corrosion and the protection of metal parts of hydraulic
engineering structures] Korroziia i zashchita metallo-
konstruktsii gidrotekhnicheskikh sooruzhenii. Moskva,
Gosenergoizdat, 1963. 198 p.   (MIRA 16:11)
          (Hydraulic structures)
          (Corrosion and anticorrosives)

BABAD-ZAKHRYAPIN, A.A.; BEREZKINA, Yu.F.

X-ray diffraction study of saturated aqueous solutions of
tungstates. Zhur.ob.khim. 32 no.11:3474-3476 N '62.
(MIRA 15:11)

1. Institut fizicheskoy khimii AN SSSR.
(Tungstates)
(X rays—Diffraction)

SARAKHOV, A.I.; DUBININ, M.M.; BEREZKINA, Yu.F.; ZAVERINA, Ye.D.

Vapor adsorption on model nonporous sorbents with physically
modified surface. Report 1: Low temperature adsorption of nitrogen
vapors on carbon black with preadsorbed water. Izv.AN SSSR,Otd.
khim.nauk no.6:974-983 Je '61.   (MIRA 14:6)

1. Institut fizicheskoy khimii AN SSSR.
                        (Nitrogen)   (Adsorption)

UVAROV, A.V.; BEREZKINA, Yu.F.

Use of infrared spectroscopy for detecting the hydroxonium ion
in phosphotungstic heteropolyacid. Zhur. fiz. khim. 36 no.4:
884-886 Ap '62. (MIRA 15:6)

1. Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut
lakokrasochnoy promyshlennosti.
  (Phosphotungstic acids—Spectra) (Oxonium ion) (Infrared rays)

SOV/78-4-4-19/44

Investigation of the Effect of Water on the Structure of Sodium Para-tungstate and Sodium Meta-tungstate Using the Method of Infra-red Absorption Spectra

No specific absorption was found for the anhydrous sodium meta-tungstate in the range 3000-3800 cm^{-1}. The differences in the optical densities of the various hydrates are shown in a table. A further table gives the wave numbers (cm^{-1}) of the absorption maxima of the hydrates of sodium meta-tungstate. There are 5 figures, 2 tables, and 8 references, 4 of which are Soviet.

ASSOCIATION: Institut fizicheskoy khimii Akademii nauk SSSR (Institute of Physical Chemistry of the Academy of Sciences, USSR)

SUBMITTED: January 13, 1958

Card 3/3

Investigation of the Effect of Water on the Structure of Sodium Para-tungstate
and Sodium Meta-tungstate Using the Method of Infra-red Absorption Spectra

and 3000-3800 cm^{-1}. For sodium para-tungstate hydrates in the
transition from $19H_2O$ to $9H_2O$ a marked change in the structure

of the coordination water and in the structure of the anions
occurred. The structures of the hydrates of the sodium meta-
tungstate remained unchanged. Using spectroscopic methods and
isotope exchange of hydrogen against deuterium it was found
that in the sodium para-tungstate with $28H_2O$ three forms of the

coordination water exist. One of these forms is present as the
hydroxyl group, which is bound directly to the tungsten atom.
Likewise in the hydrates of the sodium meta-tungstate there is
a form of the coordination water as the hydroxyl group bound
directly to the tungsten atom. Infra-red absorption spectra
of sodium meta-tungstate were plotted for 10.7 and $2H_2O$ and

the anhydrous sodium meta-tungstate in the ranges of 3000-

3800 cm^{-1} and 1300-600 cm^{-1}. These are shown in figures 4 and 5.
These spectra show that there is no difference between the ab-
sorption spectra of these hydrates of sodium meta-tungstate.

Card 2/3

5(4)

AUTHORS: Babushkin, A. A., Yukhnevich, G. V., Berezkina, Yu. F.;
Spitsyn, Vikt. I.

TITLE: Investigation of the Effect of Water on the Structure of
Sodium Para- tungstate and Sodium Meta-tungstate Using the
Method of Infra-red Absorption Spectra (Issledovaniye vliyaniya
vody na stroyeniye para- i metavol'framatov natriya metodom
infrakrasnykh spektrov pogloshcheniya)

ABSTRACT: The authors investigated the effect of water upon the structure
of sodium para and meta tungstate and the type of bonding of
the water in the anions of these compounds. The infra-red ab-
sorption spectra of sodium para and meta tungstate were plotted
for different water contents using the IKS-1 spectrophotometer
with sodium chloride and lithium fluoride prisms. The infra-red
absorption spectra for sodium para-tungstate with $28H_2O$, $19H_2O$,
$9H_2O$, $4H_2O$, $2H_2O$ and $0.2H_2O$ per molecule of $Na_{10}W_{12}C_{41}$ as well
as the anhydrous para-tungstate were investigated. The investi-
gation was carried out over the spectral ranges $700-1700$ cm^{-1}

Card 1/3

SPITSYN, Vikt.I.; BEREZKINA, Yu.F.

Investigation of the isotopic exchange between heavy water and certain
tungsten aquopolycompounds. Dokl. AN SSSR 108 no.6:1088-1091 Je '56.

(MLRA 9:10)

1. Chlen-korrespondent Akademii nauk SSSR (for Spitsyn) 2. Institut
fizicheskoy khimii Akademii nauk SSSR.

(Tungsten) (Deuterium oxide)

ILLEGIBLE

ILLEGIBLE

LAZAREVA, Ye. N.; BELOZEROVA, O. P.; KUTSKAYA, I. P.; POTRAVNOVA, R. S.; BEREZINA, Ye. K.;
EYDEL'SHTEYN, S. I.; SAVEL'YEVA, A. M.; RUBTSOVA, L. K.

"New derivatives of antibiotics of the tetracycline series."

report submitted for Antibiotics Cong, Prague, 15-19 Jun 64.

All-Union Res Inst of Antibiotics, Moscow.

PATKIN, P.N., kand.khimicheskikh nauk; BEREZKINA, V.V., mladshiy nauchnyy
sotrudnik; PRUTKOVA, N.M., laborant

Extraction of rare earth elements and yttrium from nitrate
solutions with tribytyl phosphate. Izv. TSKHA no.3:196-205
'60.   (MIRA 14:4)

1. Timiryazevskaya sel'skokhozyaystvennaya akademiya (for
Patkin). 2. Institut redkikh metallov (for Prutkova).
        (Rare earth compounds)   (Yttrium)

Translation from: Referativnyy zhurnal, Khimiya, 1961, No. 1, p. 93, # 1V1

AUTHORS: Patkin, P.N., Berezkina, V.V., Prutkova, N.M.

TITLE: The Extraction of Rare-Earth Elements and Yttrium From Nitrate Solu. tions by Tributyl Phosphate

PERIODICAL: "Izv. Timiryazevsk. s.-kh. akad.", 1960, No. 3, pp. 196-205 (English summary)

TEXT: The equilibrium distribution of lantanide nitrate between the aqueous and organic phases shifts into the side to form the complex $R(NO_3)_3 \cdot 3(C_4H_9)_3PO_4$ with an increase in intensity of intermingling of the phases. For strongly uniform intermingling of both phases, the stable distribution of the nitrates of rare-earth elements according to the phases is ensured with obtaining a constant value of the distribution ratio, which characterizes the regularity of the behavior of the rare-earth elements under given conditions. The saturated nitrate solutions of the rare-earth elements ($4-7$ Mol HNO_3, $8-5$ Mol NH_4NO_3) are most suitable for separating the rare-earth elements. Authors' summary

Translator's note: This is the full translation of the original Russian abstract.

Card 1/1

BONDARENKO, V.M.; ZVEREV, M.P.; KLIMENKOV, V.S.; BEREZKINA, T.A.;
        GERSHANOVICH, Yu.G.

        Fiber formation from polypropylene. Khim. volok. no.6:10-13 '65.
                                            (MIRA 18:12)
        1. Vsesoyuznyy nauchno-issledovatel'skiy institut iskusstvennogo
        volokna (for Bondarenko, Zverev, Klimenkov). 2. Kurskiy kombinat
        (for Berezkina, Gershanovich).

BEREZKINA, O.G.

Late results of orthopedic treatment of pyorrhea alveolaris by
V.IU.Kuliandskii's method. Sbor.nauch.-prak.rab.Poliklin.im.
F.E.Dzerzh. no.2:223-227 '61.   (MIRA 16:4)
            (TEETH--ABNORMITIES AND DEFORMITIES)
                  (GUMS--DISEASES)

ANDRUSHCHENKO, A.G.; BEREZKINA, O.A.; KUZ'MINA, V.I.; OZEROVA,
G.M.; PAL'CHIKOVA, A.P.; TSARIN, A.P.; TIMOFEYEV, L.N.;
NIKITIN, G.A., krayeved; GARMASH, P.Ye., red.; FISENKO,
A.T., tekhn. red.

[Alupka; an excursion sketch; its nature, history, sana-
toriums, the palace-museum, its park, and an information
directory] Alupka; ekskursionnyi ocherk: priroda, istoriia,
zdravnitsy, dvorets-muzei, park, spravochnye svedeniia.
Simferepol', Krymizdat, 1963. 78 p.   (MIRA 16:10)

1. Nauchnyye sotrudniki Alupkinskogo dvortsa - muzeya (for
all except Fisenko, Garmash).
          (Alupka--Guidebooks)

KISEL'GOF, S.M.; KATIKHIN, V.R.; GUSEV, A.N.; PRISYAZHNYUK, A.S.;
    KOZLOVA, D.F.; BEREZKINA, M.Ye.

Paleozoic waters of Volgograd Province. Trudy VNIING no.1:
191-224 '62.   (MIRA 16:10)

RUSNITSKIY, A. A.: PANTELEYMONOV, L. A.: PIMENOVA, V. V.: BEREZKINA, M. YE.

Cobalt

Solubility of copper in cobalt in a solid state. Vest. Mosk. un. 7 No. 3, 1952.

9. **Monthly List of Russian Accessions**, Library of Congress, October,1952~~1958~~. Unclassified.

L 22213-65
ACCESSION NR: AP5002881

...tional aerodynamic processes, and are of great practical value.
A detailed description of the shock tube (with a 130 x 50 mm cross
section and 6 m long) and a block diagram of the experimental setup
are given. The various photographic methods for data recording are ob-
tained. The data obtained make it possible to determine the velocity
of the incident shock wave, of the flow in heated and cold regions, of
the contact surface, and also to determine the duration of flow between
a shock wave and contact surface, and the amount of the flow from the
distortion distance of the shock in homogeneous regions of flow. It
is also possible to determine the time necessary for a shock wave to
reach a steady state, and the dependence of this time on the parameters
of the shock wave. Orig. art. has: 10 figures. [AB]

ASSOCIATION: none

SUBMITTED: 14May64   ENCL: 00   SUB CODE: ME

NO REF SOV: 004   OTHER: 001   ATD PRESS: 3169

Card 2/2

Card 1/2

ACCESSION NR: AP4040043

incident shock wave ranging from 2.75 M to 4.65 M in nitrogen was
determined from schlieren photographs. Orig. art. has: 7 figures
and 3 formulas.

ASSOCIATION: Fiziko-tekhnicheskiy institut im. A. F. Ioffe AN SSSR,
Leningrad (Physico-technical Institute, AN SSSR)

SUBMITTED: 09Mar64

NO REF SOV: 004

ENCL: 00

OTHER: 007

SUB CODE: ME

ATD PRESS: 3136

BEREZKINA, L.G. (Moskva); ABDUSALYAMOVA, M.N. (Moskva)

Kinetics of the reduction of thallium sulfide by carbon oxide.
Izv. AN SSSR. Met. no.4:78-81 Jl-Ag '65.

(MIRA 18:8)

BEREZKINA, L.G.; YERMAKOVA, N.I.; CHIZHIKOV, D.M.

Behavior of tin monoxide on heating. Zhur. neorg. khim. 9
no.7:1760-1763 Jl '64. (MIRA 17:9)

BEREZKINA, L.G.; YERMAKOVA, N.I.; CHIZHIKOV, D.M.

Kinetics of the reduction of tin dioxide by carbon monoxide.
Kin. i kat. 5 no.5:815-822 S-O '64.   (MIRA 17:12)

1. Institut metallurgii imeni Baykova.

BEREZKINA, L.G., kand. tekhn. nauk, red.

[Physicochemical investigations of the metallurgy of
rare metals] Fiziko-khimicheskie issledovaniia po metal-
lurgii redkikh metallov.   Moskva, Izd-vo inostr. lit-ry,
1963. 150 p. Translated from the   (MIRA 16:10)
English and German.

                         (Metals, Rare and minor--Metallurgy)

BEREZKINA, L.G.; CHIZHIKOV, D.M.

X-ray diffraction study of compounds in the PbO - SiO$_2$ system.
Zhur.neorg.khim. 7 no.4:856-859 Ap '62. (MIRA 15:4)
(Lead silicates) (X rays--Diffraction)

CHIZHIKOV, D.M.; TSVETKOV, Yu.V.; BEREZKINA, L.G.

Effect of the crystal structure of a substance on its reduction
kinetics. Kin. i kat. 2 no.1:50-54 Ja-F '61.   (MIRA 14:3)

1. Institut metallurgii imeni A.A. Baykova, AN SSSR.
          (Reduction, Chemical)
          (Chemical reaction, Rate of)

BEREZKINA, L.G. (MOSKVA); TSVETKOV, Yu.V.(Moskva); CHIZHIKOV, D.M. (Moskva)

Kinetics of the reduction of free lead oxide and of lead oxide
by means of carbon monoxide. Izv. AN SSSR, Otd. tekh. nauk.
Met.i topl. no.2:49-54 Mr-Ap '61.   (MIRA 14:4)
                        (Lead--Metallurgy)

S/137/62/000/004/003/201
A006/A101

5. 4/00

AUTHORS: Yakobson, A. M., Berezkina,L. G.

TITLE: A contactless method of determining the temperature dependence of substance density on attenuation of penetrating radiation

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 4, 1962, 7, abstract 4A32 (V sb. "Fiz. khim. osnovy proiz-va stali", Moscow, AN SSSR, 1961, 354)

TEXT: In the proposed method, Co^{60} of about 120 μcurie activity is used as a gamma-radiation source. A.crucible with the substance investigated is placed in a fixed position in the furnace. There are mica apertures in the shell and lining of the furnace along the passage of the gamma ray beam. The temperature is measured with a Pt,'Pt-Ph thermocouple whose junction is placed on the substance surface in the crucible. The method shows the reproduction of literature data for Sn and Pb silicate melts with up to 3% accuracy. The method makes it possible to determine on one specimen the relative changes in density with temperature, including solidifying and further cooling.
[Abstracter's note: Complete translation]   T. Kolesnikova

Card 1/1

Determination of the Temperature Gradient of the   S/032/6C/026/02/019/057
Density From the Absorption of Permeating   B010/B009
Radiation

at t and t_o, respectively). The dependence of $\ln \dfrac{I_t}{I_{t_o}}$ on Δt

can be represented with sufficient accuracy by a straight line
in the case of tin and lead silicate melts (Fig). The measure-
ments were carried out by means of an apparatus previously
described (Ref 1). Zirconium crucibles were used. The values
obtained are in satisfactory agreement with data obtained by
M. P. Slavinskiy (Ref 2) as well as V. A. Zyazev and O. A. Yesin
(Ref 3). A fast cooling of the $2PbO \cdot SiO_2$ melt results in
vitrification. The glass shows a greater density than the
liquid phase. If the cooling takes place slowly, crystalline
lead orthosilicate forms. In this case the density of the
solid phase is lower than that of the liquid phase and depends
on the rate of crystallization. This is apparently due to the
formation of small cavities. There are 1 figure and 3 Soviet
references.

ASSOCIATION: Institut metallurgii Akademii nauk SSSR (Institute of Metallurgy
                of the Academy of Sciences of the USSR)

Card 2/2

5(4)

AUTHORS: Berezkina, L. G., Yakobson, A. M. B010/B009

TITLE: Determination of the Temperature Gradient of the Density From the Absorption of Permeating Radiation

ABSTRACT: A contactless method for the determination of the temperature gradient of the density from the weakening of the intensity of gamma rays permeating the substance is described. This weakening is expressed by equation $I = I_0 e^{-\mu \rho x}$ (1) (I_0 = radiation intensity without absorption, μ = mass coefficient of absorption, ρ = density of the medium, x = thickness of absorptive layer), according to which the ratio of radiation intensities with a temperature change of the substance from t_0 to t reads $\ln \dfrac{I_t}{I_{t_0}} = -\mu(\rho x - \rho_0 x_0)$ (2) (ρ, ρ_0, x, x_0 = densities of the medium and thicknesses of the absorptive layer

Card 1/2

The Influence of Additions of Compounds of Alkali   SOV/20-124-5-39/62
Metals Upon the Kinetics of the Reduction of Zinc Silicate by Carbon
Monoxide

metal compounds, especially of potassium and soda. There are
3 figures and 5 Soviet references.

ASSOCIATION: Institut metallurgii im. A. A. Baykova Akademii nauk SSSR
(Institute of Metallurgy imeni A. A. Baykov of the Academy of .
Sciences, USSR)

SUBMITTED: November 5, 1958

Card 4/4

The Influence of Additions of Compounds of Alkali   SOV/20-124-5-39/62
Metals Upon the Kinetics of the Reduction of Zinc Silicate by Carbon
Monoxide

dissociated. The oxides of the alkali metals are rather vola-
tile and may be adsorbed on the surface of the silicate. In
the case of adsorption of the oxides on the reacting surface
lattice defects may form, and active reaction centers may be
produced. By an increase of the activity of the surface also
the positive influence exercised by the pressure increase
upon the reduction of the silicate in the presence of potassium
carbonate is explained. By the electronic interaction of the
adsorbed compounds with the ions of the surface layer of the
lattice the surface mobility (migration) of ions increases,
and therby the crystallochemical transformations occurring in
the course of reduction are facilitated. The accelerating
effect of the carbonate additions decreases in the order
potassium-sodium-lithium. The characteristic features of the
additions may be due to the difference in the particular
features of interactions between the admixtures and the
silicate lattice due to electrons. The results obtained by
the present paper indicate a considerable acceleration of

Card 3/4   indirect reduction by the addition of small quantities of alkali

The Influence of Additions of Compounds of Alkali   SOV/20-124-5-39/62
Metals Upon the Kinetics of the Reduction of Zinc Silicate by Carbon
Monoxide

circulation of the carbon monoxide and by freezing-out of the
reaction product CO_2 by liquid oxygen. A diagram shows the

influence exercised by temperature on the kinetics of the re-
duction of zinc silicate by carbon monoxide. Reduction begins
at $1,000^\circ$ at the noticeable rate of 3 % per hour, and a further
increase of temperature accelerates reduction considerably.
Within the investigated degrees of reduction the process de-
velops practically with constant velocity and the kinetics of
the reaction is described by the linear equation $a = kt$. The
apparent activation energy of the process is 31 kcal/mol. The
pressure of carbon monoxide exercises no influence upon the
degree of reduction of the zinc silicate within the limits of
50-400 torr. A further diagram gives data on the reduction of
$2ZnO.SiO_2$ with an addition of potassium carbonate. The follow-

ing explanation of the mechanism and the causes of the spe-
cific effect produced by individual additions may be given:
During reduction the additions may undergo several transfor-
mations, and at experimental temperatures the carbonates are

Card 2/4

5(4)

AUTHORS: Chizhikov, D. M., Corresponding Member, SOV/20-124-5-39/62
AS USSR, Berezkina, L. G.

TITLE: The Influence of Additions of Compounds of Alkali Metals Upon
the Kinetics of the Reduction of Zinc Silicate by Carbon
Monoxide (Vliyaniye dobavok soyedineniy shchelochnykh metallov
na kinetiku vosstanovleniya silikata tsinka okis'yu ugleroda)

ABSTRACT: The present paper deals with the kinetics of the reduction of
zinc silicate $2ZnO \cdot SiO_2$ by carbon monoxide and with the influ-
ence exercised by additions of potassium carbonate, sodium
carbonate, and lithium carbonate as well as by sodium chloride
and calcium chloride upon this process. The zinc silicate is
produced by the sintering of purified quartz powder with zinc
oxide at temperatures of $1,380-1,400°$. The additions are intro-
duced by impregnation from aqueous solutions in quantities of
7.5 mol% with respect to the zinc silicate. This corresponds
to a content of 2-5 % by weight of additions to the mixture.
Circulation was effected in a vacuum device with continuous

Card 1/4

Application of Gamma Radiation in the Investigation of SOV/32-25-9-16/53
the Kinetics of the Reduction of Smeltings

a displacement of the silicate - lead limit in the smelting
amounted to ± 0.2 mm with the depth of the lead layer changing
from 5 to 6 mm. Diagrams are given on the influence of time and
temperature on the reduction degree of lead from the smelting
$4PbO \cdot SiO_2$ (Fig 3). By evaluating the kinetic data obtained the
diffusion coefficients in the smelting were established. Some
limits are given which must be taken into consideration when
using the method described. There are 3 figures, 1 table, and
1 Soviet reference.

ASSOCIATION: Institut metallurgii Akademii nauk SSSR im. A. A. Baykova
(Institute of Metallurgy, Academy of Sciences, USSR, imeni
A. A. Baykov)

Card 2/2

18(7)

AUTHORS: Berezkina, L. G., Chizhikov, D. M., Yakobson, A. M.

TITLE: Application of Gamma Radiation in the Investigation of the
Kinetics of the Reduction of Smeltings

ABSTRACT: A method for the continuous control of the metal reduction from
meltings was developed. It is based on a weakening of the
intensity of the gamma radiation travelling through the smeltings
due to one ray of the gamma rays being weakened by a layer of the
separating metal. The method was used to investigate the reduction
kinetics of lead from smeltings of lead silicates (I) with the
following composition: $4PbO \cdot SiO_2$ and $2PbO \cdot SiO_2$. On the

separation of Pb from (I) a change in the density of the medium
by approximately 30% results, the intensity of the above
mentioned penetrating ray being changed by 40 - 50%. Measurements
were carried out on a unit (Fig 1) using Co^{60} of approximately
120 Millicurie, a photoelectron multiplier FEU-19M, a stabilized
"Orekh" type rectifier and a micro-ammeter M-91. The apparatus
was calibrated by the insertion of weighed pieces of lead into
the smelting. The sensitiveness of the apparatus with respect to

Card 1/2

SOV/180-59-2-19/34

Kinetics of the Reduction of Lead from a Melt of its Silicates

respectively for $4PbO.SiO_2$ and 1.9×10^{-5}, 7.8×10^{-6} and 3.5×10^{-6} cm^2/sec for 1100, 1000 and 900 oC, respectively, for $2PbO.SiO_2$.

Card 3/3 There are 4 figures, 1 table and 6 references, 5 of which are Soviet and 1 English.

ASSOCIATION: Institut Metallurgii AN SSSR (Institute of Metallurgy AS USSR)

SUBMITTED: November 29, 1958

SOV/180-59-2-19/34

Kinetics of the Reduction of Lead from a Melt of its Silicates

the other side of the furnace. The furnace and crucible
could be moved vertically. The apparatus is shown in
Fig 1. Voltage for feeding the type FEU-19M photo-
electric multiplier was provided from a type "Orekh"
rectifier, the current being measured with a type M91
microammeter. The reading of the recorder was found to
be linearly related to the quantity of lead liberated.
The degree of reduction vs time relations for $4PbO.SiO_2$
were obtained at 800, 900, 1000 and 1100 °C and for
$2PbO.SiO_2$ at 900, 1000 and 1100 °C. The curves obtained
are shown in Figs 2 and 3, respectively. Chemical
analysis and visual examination of reduced silicates
revealed that a concentration gradient existed up the
melt, suggesting that diffusion was the rate-controlling
factor. This was indirectly confirmed by the
applicability to the process of a solution of Fick's
diffusion equation for a semi-infinite rod (Ref 2).
Nominal values of the diffusion coefficients were
calculated: 1.0×10^{-4}, 5.6×10^{-5}, 3.1×10^{-5},

Card 2/3 7.1×10^{-6} cm^2/sec for 1100, 1000, 900 and 800 °C,

SOV/180-59-2-19/34

AUTHORS: Berezkina, L.G., and Chizhikov, D.M. (Moscow)

TITLE: Kinetics of the Reduction of Lead from a Melt of its Silicates (Kinetika vosstanovleniya svintsa iz rasplava yego silikatov)

ABSTRACT: The reduction of solid lead silicates by carbon monoxide is slow and incomplete (Ref 1), therefore the kinetics of lead-silicates melt reduction are important. To avoid difficulties normally associated with the determination of the course of reduction reactions in the $PbO-SiO_2$ system the authors have used a radioactive screening method which they developed together with A.M. Yakobson. The method depends on the weakening of a horizontal beam of gamma radiation passing through the melt as a result of the gradual accumulation of lead at the bottom of the crucible. The source consisted of Co^{60} with a total activity of about 120 millicurie in a lead container. The beam was collimated, passed through the melt via special channels in the vertical furnace, and its intensity was determined with a scintillation counter on

Card 1/3

BEREZKINA, L. G., Candidate Tech Sci (diss) -- "The kinetics of reducing sili-

cates of lead and zinc with carbon monoxide". Moscow, 1959. 23 pp (Acad Sci

USSR, Inst of Metallurgy im A. A. Baykov), 150 copies (KL, No 24, 1959, 134)

BEREZKINA, L.G.

CHIZHIKOV, D.M.; BEREZKINA, L.G.

Kinetika vosstanovleniya svintsa i tsinka okisyyu ugleroda.

report submitted for the 5th Physical Chemical Conference on Steel Production.

Moscow _ 30 JUN 1956

BEREZKINA, L. G.

SOV/24-58-5-23/31

Kinetics of Reduction of Lead Silicates by Means of Carbon
Monoxide

reduction of the lead in the molten state assumes
considerable importance.
There are 6 figures and 11 references, 9 of which are
Soviet, 2 English.

SUBMITTED: February 7, 1958

Card 3/3

Kinetics of Reduction of Lead Silicates by Means of Carbon
Monoxide

25 and 10 mm Hg are graphed in Figs 1-6. It was found
that the reduction of lead silicates takes place at
relatively low speeds and incompletely. In the case
of a 70 to 75% reduction of the ortho-silicate and a
25 to 35% reduction of the meta-silicate, a considerable
drop is observed in the speed of the process,which is
caused apparently by the formation of a layer of the
solid reaction product SiO_2. An increase in temperature
brings about a considerable acceleration of the reduction
of the silicates, whereby the dependence of the reaction
speed on the temperature complies with the Arrenius
equation. The influence of the pressure on the speed of
the process is described by an equation of the type of
the adsorption isotherm. It is concluded that in
reduction heats a considerable part of the lead in the
agglomerate, which is combined into silicates, does not
become reduced in the solid state and, therefore,

Card 2/3

SOV/24-58-5-23/31

AUTHORS: Berezkina, L. G. and Chizhikov, D. M. (Moscow)

TITLE: Kinetics of Reduction of Lead Silicates by Means of
Carbon Monoxide (Kinetika vosstanovleniya silikatov
svintsa okis'yu ugleroda)

ABSTRACT: The author studied the kinetics of reduction of lead
silicates at various pressures of the carbon monoxide
(10 to 400 mm Hg col) in the temperature range from the
beginning of an appreciable reduction up to the
temperature of fusion of silicates (745°C for 2 $PbO \cdot SiO_2$,
765°C for $PbO \cdot SiO_2$). The experiments were carried
out in vacuum equipment with continuous circulation of
carbon monoxide and freezing out of the gaseous reaction
products CO_2 by means of liquid nitrogen, the progress
of the reactions was judged from the loss of weight of
the initial specimen during continuous weighing on
electro-magnetic scales by means of the compensation
method, whereby the recording was effected automatically.
The experimental data obtained for temperatures of
Card 1/3   700, 650, 600 and 550°C in CO pressures of 400, 200, 50

BEREZKINA, L.F.

Change of mitochondria in muscle tissue during regeneration.
Tsitologiia 4 no.6:661-665 N-D'62   (MIRA 17:3)

1. Laboratoriya gistologii Instituta morfologii zhivotnykh
AN SSSR, Moskva.

BEREZKINA, L. F.

Radiation-Induced Tumours and Their Role in the Analysis of Malignant Transformation of Tissues

A. N. Studitsky and L. F. Berezkina

The well-known phenomenon of carcinogenesis in animals exposed to sublethal doses of radiation was studied, mainly in pure line animals.

Neoplastic transformation of tissues after a radiation-induced trauma was studied in our laboratory in a mixed population of rats. The development of tumours in these rats under normal conditions occurred only very rarely during $1\frac{1}{2}$-$2\frac{1}{2}$ yr of observation. Many benign and malignant tumours were obtained during two years work on 300 irradiated rats. In the animals which survived radiation, functions of the haemopoietic tissue including immunological activity of the lymphoid apparatus, were disturbed. Reproductive glands were completely destroyed and their endocrine function arrested. It is very characteristic that the tissues directly damaged by radiation (intestinal epithelium, haemopoietic tissue, gonads) do not develop tumours. Mammary glands become malignant most often; second in frequency of tumour formation are the salivary glands; third, the osseous tissue. A hypothesis of the mechanism of tumour development is put forward. Radiation damage enhances processes of abnormal protein synthesis going on in any normal organ. Regulating mechanisms stimulating normal protein synthesis (organs of endocrine regulation including gonads, those regulating salivary glands, and the development of the osseous tissue), and tissues concerned with immune responses are simultaneously disturbed. Neoplastic development starts as a result of the action of these factors.

Laboratory of Histology, Institute of Animal Morphology, U.S.S.R. Academy of Sciences, Moscow

(Session continued on next page)

49

report presented at the 2nd Intl. Congress of Radiation Research,
Harrogate/Yorkshire, Gt. Brit. 5-11 Aug 1962

BEREZKINA, L.F. (Moskva)

A five-year-old vegetative hybrid of axolotl and its progeny.
Usp.sovr.biol.40 no.2:239-251 S-O '55.   (MLRA 9:2)
        (HYBRIDIZATION) (PARABIOSIS)

BEREZKINA, L.F.

Changes in striated muscular tissue cultured outside the or-
ganism and on the chorioallantois. Trudy Inst.morf.zhiv. no.
11:210-224 '54.   (MIRA 8:2)
            (Muscle)

BERESKINA, L. F.

PA 1/50210

USSR/Biology - Amphibia (Contd)   Aug 49

for the necessary 4 months. Includes photographs
of the regenerative stages in four of the five
series. Submitted by Acad K. I. Skryabin
5 Feb 49.

1/50210

USSR/Biology - Amphibia   Aug 49
               Epithelium, Regeneration

"Morphogenetic Processes During Regeneration of
the Epithelium in Amphibia," L. F. Bereskina,
Inst of Evolutional Morph imeni A. N. Severtsov,
Acad Sci USSR, 3 3/4 pp

"Dok Ak Nauk SSSR" Vol LXVII, No 6

Performed five series of experiments with the
axolotl and triton in studying the interrela-
tion of epithelial and connective tissues. Am-
putated extremities or removed the outer layers
of skin, and observed the regenerative process

1/50210

BEREZKINA, L. F.

"Influence of the Sex Hormone on Regeneration of Bones"   p. 148-50

SOURCE: Dok AN, 59, No 1, 1948

Inst. Evol. Morph im. A. N. Severtsov, Acad. Sci. USSR
(Lab. of Histogenesis)

1ST AND 2ND ORDER

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH ORDERS

...transformations of osteoclasts in vitro. Cultures of ...after parathormone administration. A. Rumianteev and L. ...(Compt. rend. Acad. Sci. U.R.S.S., 1945, 46, 168-170).—The osteoclasts und... ...epiphyseal plate of the femur in young rats inj... ...me live for 5—6 days in culture media. Their di... ...are described. Division of the osteoclasts was not obs...ed nor their transformation from or into mesenchyme cells. It is concluded that their development is dependent on the presence of parathormone, which was not added to the culture medium.
                                                                    P. C. W.

A.E.A.-II.L.A. METALLURGICAL LITERATURE CLASSIFICATION

BEREZKINA, L. F.

No 1,

Inst Evolutionary Morphology imeni A. N. Severtsov

Lab of. Histogenesis, Inst. Evol. Moephology im. A.N Severtsov Acad. Sci USSR

P.C.W.

BEREZKINA, L. F.

From Russian for Dr. C. Grobstein

Izvestiia Akademii Nauk SSSR,
otdel. biol. n. (2): 67-73;
4 figs.; 1943.

On the Possibility of Induction of Cartilage Formation in Vitro
by
L. F. Berezkina
(Institute of Evolutionary Morphology (Dir.: Acad. Member I. I. Shmal'hauzen),
Academy of Sciences of the USSR)

(Article entered editorial office 9-21-1941)

Translated at the National Institutes of Health, Bethesda, Maryland.
Full translation available in NIH.

BEREZKINA, L. F.   Effect on excess of chlorides on carbohydrate metabolism in a tissue grown in vitro. A. Rumyantsev and L. Berezkina. *Compt. rend. acad. sci. U. R. S. S.* 22, No 4, 341-4(1946)(in English); cf. C. A. 33, 4670[4]. Bits of heart tissue of an 8-day chicken embryo were grown on solns. of blood plasma and salt solns., with and without glucose. Excess of $CaCl_2$ inhibited growth more than did $NaCl$ or KCl. The latter, however, stimulated sugar consumption the most.   J. J. Willaman

Inst of Evolutionary Morphology imeni A. N. Sivertsov

Lab. of Histogenesis

A.S.M.-S.L.A. METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH ORDERS

(3C   BEREZKINA, L. F.

Interrelation between pre-existing fibres in explanted tissue and fibres formed anew in vitro. L. F. BEREZKINA (Compt. rend. Acad. Sci. U.R.S.S., 1938, 21, 209—211).—Well-formed collagen fibres, explanted into a healthy culture of embryonic connective tissue, are capable of further growth.

W. F. F

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

KRAVCHENKO, N.A.; SADYKOVA, V.B.; AL'TGAUZEN, V.P.; BEREZKINA, G.N.;
KOSTYUKOVA, N.N.; SUSLOVA, V.S.; BOCHKOVA, V.A.; NEYMARK, F.M.

"Indicator" method for the detection and identification of
diphtheria pathogen cultures, suggested by G.V. Andreeva and
Z.N. Poliakova. Zhur. mikrobiol., epid. i immun. 40 no.3:
131-132 Mr '63.   (MIRA 17:2)

KRAVCHENKO, N.A.; SHANINA-VAGINA, V.I.; BEREZKINA, G.N.

Nutrient medium for determining the toxigenicity of diphtheria microbes in experiments in vitro. Lab. delo 10 no.3:170-172 '64.

(MIRA 17:5)

1. Moskovskiy nauchno-issledovatel'skiy institut vaktsin i syvorotok im. I.I.Mechnikova.

BEREZKINA, Galina Mikhaylovna; KRYZHANOVSKIY, V.A., red. izd-va;
IYERUSALIMSKAYA, Ye., tekhn. red.

[Instructions on determining the filtration coefficient of
bound soils on the F-1M unit]Instruktsiia po opredeleniiu koef-
fitsienta fil'tratsii sviaznykh gruntov na pribore F-1M. Mo-
skva, Gosgeoltekhizdat, 1962. 18 p.   (MIRA 15:9)
       (Soil percolation)

BEREZKINA, G.M.

Change in the water permeability of coherent soils resulting
from the pressure gradient. Vest. Mosk. un. Ser 4: Geol. 20
no.1:82-83 Ja-F '65. (MIRA 18:3)

1. Kafedra gruntovedeniya i inzhenernoy geologii Moskovskogo
gosudarstvennogo universiteta.

BEREZKINA, G.M.

New F-1M filter device for bound soils. Razved. i okh. nedr 27
no.9:54 S '61.   (MIRA 17:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut gidrogeologii i
inzhenernoy geologii.

BEREZKINA, G. M., Candidate Geolog-Mineralog Sci (diss) -- "The lithological

aspects of the Caemozoic deposits of the Ob' around Tomsk". Moscow, 1959. 19 pp

(Moscow Order of Lenin and Order of Labor Red Banner State U im M. V. Lomonosov,

Geol Faculty, Chair of Soil Studies and Engineering Goology), 110 copies (KL, No

22, 1959, 110)

BEREZKINA, G.M.

Cenozoic clay minerals in the central Ob' Valley as a possible
indicator in stratigraphic division of Cenozoic rocks. Nauch.dokl.
vys.shkoly; geol.-nauki no.4:192-197 '58.   (MIRA 12:6)

1. Moskovskiy universitet, geologicheskiy fakul'tet, kafedra gruntove-
deniya.
                (Ob' Valley--Geology, Stratigraphic)

SKARLYGINA, M.D.; BEREZKINA, G.A.

Results in determining the sum of metals by copper (Cu.Ni.Co)
depending on the method of their extraction from plant ashes.
Vest. LGU 19 no.12:157-161 '64   (MIRA 17:8)

BEREZKINA, E.I. (Moskva)

From the history of decimal fractions in China. Mat. v shkole
no.3:9-17 My-Je '63.   (MIRA 16:7)

(Mathematics, Chinese)

BEREZKINA, E.I.

Mathematical treatise by Sun-tz'u. Ist.-mat. issl. no.13:219-
230 '60.   (MIRA 14:8)
                    (Mathematics, Chinese)

BEREZKINA, E.I.

Arithmetical problems in the ancient Chinese treatise "Mathematics
in nine volumes." Iz ist. nauki i tekh. v stran. Vost. no.1:34-55
'60. (MIRA 14:8)

(Mathematics, Chinese)

BEREZKINA, E. I.: Master Phys-Math Sci (diss) -- "The ancient Chinese tract

'Mathematics in Nine Books'". Moscow, 1959. 10 pp (Moscow State U im M. V.

Lomonosov), 150 copies (KL, No 16, 1959, 105)

The Conference of Sinologists at Marburg.   30-12-15/45

spirit of mutual understanding. It was, however, most un-
fortunate that the conference was not attended by delegates
from the Chinese People's Republic. The majority of the dele-
gates apparently recognized the unfortunate character of this
state of affairs, and during the final session the text of a
letter adressed to the   scientists   of the Chinese People's
Republic was unanimously approved. In this letter great regret
was expressed that no delegates from Chinese People's Republic
had come, and an invitation was issued for the next regular
conference of young sinologists, which is due to take place at
Venice in 1958. The theme to be discussed will be "The Method
of a Critical Attitude in the Study of Sources".

AVAILABLE: Library of Congress

1. Sinologist--Conference   2. Culture--China

Card 3/3

The Conference of Sinologists at Marburg. 3C-12-15/45

"On the problem of the founding of the Chinese Nation", and
R. V. Vyatkin "On the part played by Sym Tsyan' in the develop-
ment of historical knowledge", etc. Several lectures dealt with
problems of literature and art. The following are worth ment-
ioning: the problematic and interesting lecture delivered by
J. Prusek (CSR) "On the Part Played by Traditions in Chinese
Literature", those by S. D. Markova "On the Tradition and Inno-
vations in the Early Poetry of Go MoZho", by Pan' chzhun-guy
(Singapore) on the novel "Khunloumyn", and by E. Burkhardt
(Switzerland) on the famous Chinese painter Tsi Bay-shi. The
analysis of the ancient Chinese mathematical treatise
"Tszyuchzhan suan'shu" was carried out by E. I. Berezkina and
Van Lin (England). R. Khussene (England) spoke about the pro-
blem of changing over from Chinese hieroglyphics to the Latin
alphabet. Several lectures caused lively discussions. By re-
quest of the participants the author gave a report on the re-
sults obtained at the I. All-Union Conference of orientalists
at Tashkent. As an important result achieved at the past con-
ference the establishment of closer contact among the men of
learning of different countries must be mentioned. Further
mention must be made of the good organization and of the
hospitality shown by the   Marburg scientists   and of the

Card 2/3

BEREZKINA, E.I.

AUTHOR: Vyatkin, R. V., Candidate of History.   30-12-15/45

TITLE: The Conference of Sinologists at Marburg
(Na konferentsii sinologov v Marburge).

PERIODICAL: Vestnik An SSSR, 1957, Vol. 27, Nr 12, pp. 69-70 (USSR)

ABSTRACT: From September 5 to September 12 the 10th international con-
ference of young sinologists took place in the old university
town of Marburg (German Federal Republic). Such meetings of
sinologists from various countries, which are now an important
event in the life of science, have been held regularly since
1948. For each of these conferences, which have the character
of a symposium, certain questions are usually prepared for
discussion. The program of operation made it possible, however,
to deliver lectures also an other subjects. This conference was
attended by 160 delegates from 16 countries. The Soviet dele-
gation consisted of 4 collaborators of the Sinological Institute
of the AN USSR. The preceding subject dealt with was "Tradition
and Innovations in the Chinese Civilization and Literature".
All in all 20 lectures were delivered, 8 of which dealt with
historical subjects: The lecture delivered by the German hist-
orian G. Franke on Tsya-Sy-dao, a politician of the Sun epoch,
Card 1/3   the lectures delivered by the Soviet delegate V. N. Nikiforov

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L 23059-66

ACC NR: AP6001997

where C_k is the quantity characterizing the drying capacity of the heat exchanger, depending on the physical properties of the medium (diffusivity k, latent heat of condensation r, thermal expansibility β, and specific gravity γ. The last two quantities are not taken into account in the temperature and pressure range investigated). The equation presented is solved by means of the graph $x_w = f(x_f, C_k)$ (Fig. 1).

Fig. 1. The relationship $x_w = f(x_f, C_k)$ for heat exchangers.
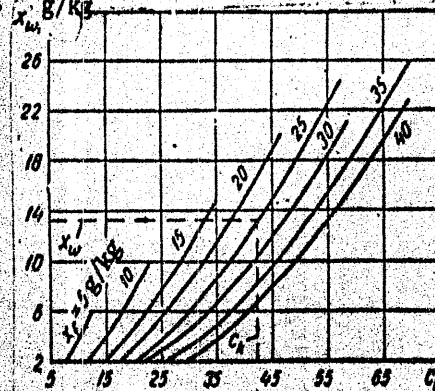
Orig. art. has: 4 figures and 10 formulas.

SUB CODE: 13, 20 / SUBM DATE: 06Apr65 / ORIG REF: 007 / OTH REF: 001
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ACC NR: AP6001997   SOURCE CODE: UR/0170/65/009/006/0735/0740

AUTHOR: Berezkin, A. I.

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TITLE: The temperature similitude of the heat exchange processes

SOURCE: Inzhenerno-fizicheskiy zhurnal, v. 9, no. 6, 1965, 735-740

TOPIC TAGS: heat exchanger, heat transfer, boundary layer, heat transfer, temperature simulation

ABSTRACT: The author presents a relationship which makes possible a quantitative and a qualitative characterization of the temperature and humidity condition of the medium in heat- and mass-transfer processes on the boundary of the boundary layer. The method of derivation is given in detail. The following equation may be used for the calculation of heat- and mass-transfer processes in the 20—40C temperature range (at atmospheric pressure):

$$C_k = \frac{\Delta x}{\lg(x_l/x_w)} = 1,14 \cdot 10^{10} \frac{Ak^2}{g^{l^3}r} \left(\frac{t_0}{l}\right)^2.$$

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UDC 536.24 + 532.526

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